

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR MANAGEMENT**

**Muncie Casting Corporation
1406 East 18th Street
Muncie, Indiana 47302**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 035-9977-00061	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	4
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permit Conditions	
SECTION B	GENERAL CONDITIONS	8
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3 (h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Modification [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)]	
B.22	Transfer of Ownership or Operation [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
SECTION C	SOURCE OPERATION CONDITIONS	18
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Overall Source Limit [326 IAC 2-8]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1][IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.7	Stack Height [326 IAC 1-7]	
C.8	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.9	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.10	Compliance Requirements [326 IAC 2-1.1-11]	

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.12 Monitoring Methods [326 IAC 3]
- C.13 Pressure Gauge Specifications

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS: Iron and aluminum foundry 26

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 PM₁₀ [326 IAC 2-8-4] [326 IAC 2-2]
- D.1.2 PM [326 IAC 2-2]
- D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]
- D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]
- D.1.5 Material Usage
- D.1.6 Furnace Operations
- D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.8 Visible Emissions Notations
- D.1.9 Parametric Monitoring
- D.1.10 Baghouse Inspections
- D.1.11 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.12 Record Keeping Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS: Insignificant Activities 35

- D.2.1 Volatile Organic Compounds (VOC)
- D.2.2 Volatile Organic Compounds (VOC)
- D.2.3 Particulate Matter (PM) [325 IAC 6-3-2]

Certification Form 38

Emergency/Deviation Form 39

Semi-Annual Compliance Monitoring Report Form 41

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary aluminum and gray iron foundry.

Authorized individual:	Aaron Vest
Source Address:	1406 East 18th Street Muncie, Indiana 47302
Mailing Address:	P.O. Box 2328, Muncie, Indiana 47307
Phone Number:	765 - 288 - 2611
SIC Code:	3321 and 3365
County Location:	Delaware
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Iron Foundry

- (a) One (1) charge handling operation, known as EU1, installed in 1992, capacity: 0.45 tons of gray iron per hour.
- (b) Two (2) electric melting furnaces, known as the 1,000 pound and the 500 pound furnaces, known as EU2, installed in 1992, throughput capacity: 10.8 tons of gray iron per day total limited by single power supply.
- (c) One (1) magnesium treatment of ductile iron operation, known as EU3, installed in 1992, capacity: 0.09 tons of iron per hour.
- (d) One (1) pouring/casting operation, known as EU4, installed in 1992, capacity: 0.45 tons of gray iron per hour.
- (e) One (1) casting cooling operation, known as EU5, installed in 1992, capacity: 0.45 tons of gray iron castings per hour.
- (f) One (1) shakeout operation (physically located in the aluminum foundry), known as EU6, installed in 1992, capacity: 0.45 tons of gray iron castings per hour.

Aluminum Foundry

- (g) Four (4) electric melting furnaces, consisting of three (3) (2,300 pound furnaces) and one (1) (700 pound furnace), collectively known as EU7, installed in 1992, throughput capacity: 0.450 tons of aluminum per hour for the three (3) (2,300 pound furnaces) plus 0.350 tons of aluminum per hour for the one (1) (700 pound furnace), total throughput capacity: 0.575 tons

of aluminum per hour.

- (h) One (1) natural gas-fired melting furnace, (300 pound furnace) known as EU8, rated at 1.0 million British thermal units per hour, installed in 1980, capacity: 0.050 tons of aluminum per hour.
- (i) One (1) magnesium treatment in the aluminum foundry, known as EU9, installed in 1992, capacity: 0.53 tons of magnesium per hour.
- (j) One (1) pouring/casting operation, known as EU10, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (k) One (1) casting cooling operation, known as EU11, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (l) One (1) shakeout operation, known as EU12, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (m) One (1) mechanical sand reclamation unit (located in the aluminum foundry), known as EU13, equipped with a dust collector, installed in 1991, capacity: 1.5 tons of sand per hour.
- (n) One (1) GOFF steel shot blast machine (located in the aluminum foundry), known as EU14, equipped with a baghouse, installed in 1993, exhausted through Stack 4, capacity: 0.31 tons of aluminum or gray iron castings per hour.
- (o) One (1) small aluminum shot blast machine (located in the aluminum foundry), known as EU15, equipped with a Viking baghouse (does not have to be operated at all times), installed in 1993, exhausted inside the building, capacity: 0.03 tons of aluminum castings per hour.
- (p) One (1) sand blaster machine (located in the aluminum foundry), known as EU16, equipped with a Blast-It-All baghouse (does not have to be operated at all times), installed in 1980, exhausted inside the building, capacity: 0.03 tons of aluminum or gray iron castings per hour.
- (q) One (1) thermal sand reclamation unit (located in the aluminum foundry), known as EU17, equipped with two (2) natural gas-fired burners, rated at 1.0 million British thermal units per hour each, equipped with a baghouse, installed in 1998, exhausted through Stack 12, capacity: 1 ton of sand per hour.
- (r) One (1) Strong Scott sand mixer (located in the iron foundry), known as EU18, utilizing a Novathane binder system, installed in 1980, capacity: 6.0 tons of sand per hour.
- (s) One (1) Kloster sand mixer (located in the aluminum foundry), known as EU19, utilizing a Novathane binder system, installed in 1994, capacity: 9.0 tons of sand per hour.
- (t) One (1) Palmer core mixer #1 (located in the aluminum foundry), known as EU20, utilizing a Novathane binder system, installed in 1994, capacity: 6.0 tons of sand per hour.
- (u) One (1) Palmer core mixer #2 (located in the aluminum foundry), known as EU21, utilizing an Iso-set binder system, installed in 1998, capacity: 6.0 tons of sand per hour.

- (v) One (1) CB-22 core machine (located in the aluminum foundry), known as EU22, equipped with a caustic soda scrubber (does not have to be operated at all times), installed in 1998, capacity: 0.5 tons of cores per hour.
- (w) One (1) Dependable 420 core machine (located in the aluminum foundry), known as EU23, equipped with a caustic soda scrubber (does not have to be operated at all times), installed in 1998, capacity: 0.5 tons of cores per hour.
- (x) One (1) U-180 core machine (located in the aluminum foundry), known as EU24, utilizing a shell binder system, installed in 1998, capacity: 0.045 tons of cores per hour.
- (y) One (1) surface coating spray application process (in the mold and core making areas), known as EU26, installed in 1980, capacity: 8,637 pounds of coating materials per year.
- (z) Fugitive outdoor waste sand storage and handling, known as EUF1, capacity 20 tons of waste foundry sand.
- (aa) One (1) paint booth (located in the pattern shop), known as EU25, installed in 1980, removed from service.

Note exhaust fans #1, #2 and #3 are located above the pouring lines and furnaces in the Iron Foundry. Exhaust fans #5 through #8 are located above or near the cooling lines and the 1,000 Lb and two (2) 2,300 Lb furnaces in the Aluminum Foundry.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (b) The following VOC and HAP storage containers: storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons; vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (c) Refractory storage not requiring air pollution control equipment.
- (d) Equipment used exclusively for the following: Packaging lubricants and greases, filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (e) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. Parts washer (covered cold cleaner), capacity: 40 gallon (326 IAC
- (h) Cleaners and solvents characterized as follows: having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or; having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (j) Closed loop heating and cooling systems.
- (k) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (l) Water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Paved and unpaved roads and parking lots with public access.
- (o) Grinding and machining operations controller with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (p) Filter or coalescer media changeout.
- (q) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kiloPascals measured at 38EC).
- (r) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (s) Other activities with insignificant thresholds:
 - (1) Two (2) electric heat treating machines.
 - (2) Three (3) sand storage silos, equipped with bin-top filler banks exhausted through Stacks #9, #10 and #11, capacity: 10, 40 and 40 tons, respectively, throughput 1,462.25 tons of sand per year total.
 - (3) Woodworking activities in the pattern shop (sawing, cutting, routing and planing)
- (t) Experimental sand and shot blasters for research and development.
- (u) One (1) electric heat treat furnace with no emissions.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, then the Permittee must furnish record directly to the U. S. EPA. The Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM, may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

- (c) A copy of the PMPs shall be submitted to IDEM, OAM, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation, except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

- (2) If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the applicable provisions of 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-8-5(a)(4)]

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee

seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAM of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that

equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

- (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.
 - (1) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent of the operating time in any quarter.
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline.
- (c) IDEM, OAM reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Iron Foundry

- (a) One (1) charge handling operation, known as EU1, installed in 1992, capacity: 0.45 tons of gray iron per hour.
- (b) Two (2) electric melting furnaces, known as the 1,000 pound and the 500 pound furnaces, known as EU2, installed in 1992, throughput capacity: 10.8 tons of gray iron per day total limited by single power supply.
- (c) One (1) magnesium treatment of ductile iron operation, known as EU3, installed in 1992, capacity: 0.09 tons of iron per hour.
- (d) One (1) pouring/casting operation, known as EU4, installed in 1992, capacity: 0.45 tons of gray iron per hour.
- (e) One (1) casting cooling operation, known as EU5, installed in 1992, capacity: 0.45 tons of gray iron castings per hour.
- (f) One (1) shakeout operation (physically located in the aluminum foundry), known as EU6, installed in 1992, capacity: 0.45 tons of gray iron castings per hour.

Aluminum Foundry

- (g) Four (4) electric melting furnaces, consisting of three (3) (2,300 pound furnaces) and one (1) (700 pound furnace), collectively known as EU7, installed in 1992, throughput capacity: 0.450 tons of aluminum per hour for the three (3) (2,300 pound furnaces) plus 0.350 tons of aluminum per hour for the one (1) (700 pound furnace), total throughput capacity: 0.575 tons of aluminum per hour.
- (h) One (1) natural gas-fired melting furnace, (300 pound furnace) known as EU8, rated at 1.0 million British thermal units per hour, installed in 1980, capacity: 0.050 tons of aluminum per hour.
- (i) One (1) magnesium treatment in the aluminum foundry, known as EU9, installed in 1992, capacity: 0.53 tons of magnesium per hour.
- (j) One (1) pouring/casting operation, known as EU10, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (k) One (1) casting cooling operation, known as EU11, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (l) One (1) shakeout operation, known as EU12, installed in 1980, capacity: 0.625 tons of aluminum per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Facility Description [326 IAC 2-8-4(10)]:

- (m) One (1) mechanical sand reclamation unit (located in the aluminum foundry), known as EU13, equipped with a dust collector, installed in 1991, capacity: 1.5 tons of sand per hour.
- (n) One (1) GOFF steel shot blast machine (located in the aluminum foundry), known as EU14, equipped with a baghouse, installed in 1993, exhausted through Stack 4, capacity: 0.31 tons of aluminum or gray iron castings per hour.
- (o) One (1) small aluminum shot blast machine (located in the aluminum foundry), known as EU15, equipped with a Viking baghouse (does not have to be operated at all times), installed in 1993, exhausted inside the building, capacity: 0.03 tons of aluminum or gray iron castings per hour.
- (p) One (1) sand blaster machine (located in the aluminum foundry), known as EU16, equipped with a Blast-It-All baghouse (does not have to be operated at all times), installed in 1980, exhausted inside the building, capacity: 0.03 tons of aluminum or gray iron castings per hour.
- (q) One (1) thermal sand reclamation unit (located in the aluminum foundry), known as EU17, equipped with two (2) natural gas-fired burners, rated at 1.0 million British thermal units per hour each, equipped with a baghouse, installed in 1998, exhausted through Stack 12, capacity: 1 ton of sand per hour.
- (r) One (1) Strong Scott sand mixer (located in the iron foundry), known as EU18, utilizing a Novathane binder system, installed in 1980, capacity: 6.0 tons of sand per hour.
- (s) One (1) Kloster sand mixer (located in the aluminum foundry), known as EU19, utilizing a Novathane binder system, installed in 1994, capacity: 9.0 tons of sand per hour.
- (t) One (1) Palmer core mixer #1 (located in the aluminum foundry), known as EU20, utilizing a Novathane binder system, installed in 1994, capacity: 6.0 tons of sand per hour.
- (u) One (1) Palmer core mixer #2 (located in the aluminum foundry), known as EU21, utilizing an Iso-set binder system, installed in 1998, capacity: 6.0 tons of sand per hour.
- (v) One (1) CB-22 core machine (located in the aluminum foundry), known as EU22, equipped with a caustic soda scrubber (does not have to be operated at all times), installed in 1998, capacity: 0.5 tons of cores per hour.
- (w) One (1) Dependable 420 core machine (located in the aluminum foundry), known as EU23, equipped with a caustic soda scrubber (does not have to be operated at all times), installed in 1998, capacity: 0.5 tons of cores per hour.
- (x) One (1) U-180 core machine (located in the aluminum foundry), known as EU24, utilizing a shell binder system, installed in 1998, capacity: 0.045 tons of cores per hour.
- (y) One (1) surface coating spray application process (in the mold and core making areas), known as EU26, installed in 1980, capacity: 8,637 pounds of coating materials per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Facility Description [326 IAC 2-8-4(10)]:

- (z) Fugitive outdoor waste sand storage and handling, known as EUF1, capacity 20 tons of waste foundry sand.
- (aa) One (1) paint booth (located in the pattern shop), known as EU25, installed in 1980, removed from service.

Note: Exhaust fans #1, #2 and #3 are located above the pouring lines and furnaces in the Iron Foundry. Exhaust fans #5 through #8 are located above or near the cooling lines and the 1,000 Lb and two (2) 2,300 Lb furnaces in the Aluminum Foundry.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 PM₁₀ [326 IAC 2-8-4] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 2-8-4, the hourly PM₁₀ emissions from the individual emission units shall not exceed the following:

Operation/Stack ID	Hourly PM ₁₀ Emission Limits (pounds per hour)
Iron Foundry	
Charge Handling (EU1)	0.160
Two (2) Electric Melting Furnaces (EU2)	0.387 total
Magnesium Treatment (EU3)	0.162
Pouring/Casting (EU4)	1.26
Casting Cooling (EU5)	0.630
Shakeout (EU6)	1.01
Aluminum Foundry	
Three (3) 2,300 Lb Melting Furnace (EU7)	0.255 0.255 0.255
1,000 Lb Melting Furnace (EU7)	0.213
300 Lb Melting Furnace (EU8)	0.085
Magnesium Treatment (EU9)	0.954
Pouring/Casting (EU10)	1.75
Casting Cooling (EU11)	0.875
Shakeout (EU12)	1.40
Mechanical Sand Reclamation Unit (EU13)	2.477

Operation/Stack ID	Hourly PM ₁₀ Emission Limits (pounds per hour)
GOFF Shot Blaster (EU14)	0.067
Small Aluminum Shot Blaster (EU15) uncontrolled	0.51
Sand Blaster (EU16) uncontrolled	0.51
Thermal Sand Reclamation Unit (EU17)	0.067
Strong Scott Mixer (EU18)	1.96
Closter Mixer (EU19)	3.00
Palmer Core Mixer #1 (EU20)	1.96
Palmer Core Mixer #2 (EU21)	1.96
Pattern Painting & Core Release (EU26)	0.116
Total	21.3

- (b) Compliance with these PM₁₀ emission limits will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) and 326 IAC 2-2 do not apply.

D.1.2 PM [326 IAC 2-2]

To avoid the requirements of 326 IAC 2-2, the hourly PM emissions from the individual emissions units shall not exceed the following:

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
Iron Foundry	
Charge Handling (EU1)	0.270
Two (2) Electric Melting Furnaces (EU2)	0.405 total
Magnesium Treatment (EU3)	0.162
Pouring/Casting (EU4)	1.26
Casting Cooling (EU5)	0.630
Shakeout (EU6)	1.44

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
Aluminum Foundry	
Three (3) 2,300 Lb Melting Furnace (EU7)	0.285 0.285 0.285
1,000 Lb Melting Furnace (EU7)	0.238
300 Lb Melting Furnace (EU8)	0.095
Magnesium Treatment (EU9)	0.954
Pouring/Casting (EU10)	1.75
Casting Cooling (EU11)	0.875
Shakeout (EU12)	2.00
Mechanical Sand Reclamation Unit (EU13)	9.37
GOFF Shot Blaster (EU14)	0.365
Small Aluminum Shot Blaster (EU15) uncontrolled	0.51
Sand Blaster (EU16) uncontrolled	0.51
Thermal Sand Reclamation Unit (EU17)	0.038
Strong Scott Mixer (EU18)	7.50
Closter Mixer (EU19)	11.2
Palmer Core Mixer #1 (EU20)	7.50
Palmer Core Mixer #2 (EU21)	7.50
Pattern Painting & Core Release (EU26)	0.116
Total	55.6

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rates from the facilities listed in this section shall not exceed the stated PM emission rates listed in the following table:

Emission Unit	Process Weight Rate (tons per hour)	Allowable PM Emission Rate (pounds per hour)
Iron Foundry		
Charge Handling (EU1)	0.45	2.40
Two (2) Electric Melting Furnaces (EU2)	0.45 total	2.40 total

Emission Unit	Process Weight Rate (tons per hour)	Allowable PM Emission Rate (pounds per hour)
Magnesium Treatment (EU3)	0.09	0.817
Pouring/Casting (EU4)	0.45	2.40
Casting Cooling (EU5)	0.45	2.40
Shakeout (EU6)	0.45	2.40
Aluminum Foundry		
Three (3) 2,300 Lb Melting Furnace (EU7)	0.15 0.15 0.15	1.15 1.15 1.15
1,000 Lb Melting Furnace (EU7)	0.350	2.03
300 Lb Melting Furnace (EU8)	0.05	0.551
Magnesium Treatment (EU9)	0.53	2.68
Pouring/Casting (EU10)	0.625	2.99
Casting Cooling (EU11)	0.625	2.99
Shakeout (EU12)	0.625	2.99
Mechanical Sand Reclamation Unit (EU13)	1.5	5.38
GOFF Shot Blaster (EU14)	0.31	1.87
Small Aluminum Shot Blaster (EU15)	0.03	0.551
Sand Blaster (EU16)	0.03	0.551
Thermal Sand Reclamation Unit (EU17)	1.0	4.10
Strong Scott Mixer (EU18)	6.0	13.6
Closter Mixer (EU19)	9.0	17.9
Palmer Core Mixer #1 (EU20)	6.0	13.6
Palmer Core Mixer #2 (EU21)	6.0	13.6

- (b) The pounds per hour limitations were calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which may increase the potential emissions of VOC to twenty-five (25) tons per year from the core machines (EU22 - EU24) and/or pattern parting booth and the core release application area (EU26) must be approved by the Office of Air Management before such change may occur.

D.1.5 Material Usage

The permittee shall not melt any post consumer aluminum and/or gray iron materials at this source. Only in-house aluminum and/or gray iron returns from this source and/or in-house returns from other sources where the composition of the purchased returns have at least the same quality of the source's own in-house aluminum and/or gray iron returns shall be melted. Any other sources' aluminum and/or gray iron returns shall be specified and controlled contractually. Compliance with this makes the source not 1 of the 28 major PSD source categories.

D.1.6 Furnace Operations

The two (2) electric melting furnaces, known as the 1,000 pound and the 500 pound furnaces, known as EU2 shall not exceed a melt throughput of 0.45 tons of iron per hour.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) sand mixers and the two core (2) mixers, known as EU18 through EU21 and their control devices.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.8 Visible Emissions Notations

- (a) Visible emission notations of the four (4) mixers (EU18 - EU21), the mechanical sand reclamation unit (EU13) and stack exhausts 4 and 12 for the GOFF blaster (EU14) and the thermal sand reclamation unit (EU17), respectively, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collectors/baghouses used in conjunction with the mechanical sand reclamation unit (EU13), the GOFF blaster (EU14) and the thermal sand reclamation unit (EU17), at least once per shift when these processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 and 8.0 inches of water for EU13, EU14 and EU17 or a range established during the latest stack test. The Compliance Response Plan for these units shall contain trouble-

shooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.1.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the blasting and sand reclamation operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.12 Quality of Metal Melted

The permittee shall make a determination of the type, quality and origin of all materials melted at this source.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.13 Record Keeping Requirements

- (a) To document compliance with Condition D.1.8, the Permittee shall maintain records of daily visible emission notations of the four (4) mixers (EU18 - EU21), the mechanical sand reclamation unit (EU13) and the stack exhausts 4 and 12 for the GOFF blaster (EU14) and thermal sand reclamation unit (EU17), respectively.
- (b) To document compliance with Condition D.1.9, the Permittee shall maintain the following:
 - (1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

Inlet and outlet differential static pressure.
 - (2) Documentation of all response steps implemented, per event.

- (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain records of the results of the inspections required under Condition D.1.10 and the dates the vents are redirected.
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain records of determinations of the type, quality and origin of all materials melted at this source required under Condition D.1.12.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. Parts washer (covered cold cleaner), capacity: 40 gallon (326 IAC
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (o) Grinding and machining operations controller with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (s) Other activities with insignificant thresholds:
 - (2) Three (3) sand storage silos, equipped with bin-top filler banks exhausted through Stacks #9, #10 and #11, capacity: 10, 40 and 40 tons, respectively, throughput 1,462.25 tons of sand per year total.
 - (3) Woodworking activities in the pattern shop (sawing, cutting, routing and planing)

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.2.2 Volatile Organic Compounds (VOC)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.2.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the brazing equipment, cutting torches, soldering equipment, and welding equipment, grinding and machining operations, the three (3) sand storage silos and woodworking activities in the pattern shop shall not exceed allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Muncie Casting Corporation
Source Address: 1406 East 18th Street, Muncie, Indiana 47302
Mailing Address: P.O. Box 2328, Muncie, Indiana 47307
FESOP No.: F 035-9977-00061

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Muncie Casting Corporation
Source Address: 1406 East 18th Street, Muncie, Indiana 47302
Mailing Address: P.O. Box 2328, Muncie, Indiana 47307
FESOP No.: F 035-9977-00061

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2

- 9** 1. This is an emergency as defined in 326 IAC 2-7-1(12)
CThe Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
- 9** 2. This is a deviation, reportable per 326 IAC 2-8-4(3)(C)
CThe Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency/Deviation:

Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
SEMI-ANNUAL COMPLIANCE MONITORING REPORT**

Source Name: Muncie Casting Corporation
Source Address: 1406 East 18th Street, Muncie, Indiana 47302
Mailing Address: P.O. Box 2328, Muncie, Indiana 47307
FESOP No.: F 035-9977-00061

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted semi-annually based on a calendar year. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (eg. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Muncie Casting Corporation
Source Location: 1406 East 18th Street, Muncie, Indiana 47302
County: Delaware
FESOP: F 035-9977-00061
SIC Code: 3321, 3365
Permit Reviewer: Mark L. Kramer

On August 16, 2000, the Office of Air Management (OAM) had a notice published in the Muncie Star Press, Muncie, Indiana, stating that Muncie Casting Corporation had applied for a Federally Enforceable State Operating Permit (FESOP) to operate an iron and aluminum foundry. The notice also stated that OAM proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

On August 22, 2000, Joseph M. VanCamp of Cornerstone Environmental, Health and Safety, Inc., on behalf of Muncie Casting Corporation submitted additional comments on the proposed FESOP. The permit language, if changed, has deleted language appearing as ~~strikeouts~~ and new language **bolded**. The comments are as follows:

Comments 1 and 2:

The batch capacity of the 1,000 pound furnace in the aluminum foundry identified in Section A.2(g) should be changed to 700 pounds. The total maximum aluminum throughput capacity of EU7 will still be 0.575 tons per hour. This 700 pounds batch capacity descriptor should be modified in all references to EU7 throughout the permit. The installation date of these aluminum furnaces should be changed from 1980 to 1992. This date change should also be made in the facility description in Section D of the permit.

The installation date for the magnesium treatment operation in the aluminum foundry identified as EU9 in Section A.2(i) should be changed from 1980 to 1992.

Responses 1 and 2:

Conditions A.2 and D.1 have been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
 This stationary source consists of the following emission units and pollution control devices:

Aluminum Foundry

- (g) Four (4) electric melting furnaces, consisting of three (3) (2,300 pound furnaces) and one (1) (~~700 4000~~ pound furnace), collectively known as EU7, installed in ~~1992-1980~~, throughput capacity: 0.450 tons of aluminum per hour for the three (3) (2,300 pound furnaces) plus 0.350 tons of aluminum per hour for the one (1) (~~700 4000~~ pound furnace), total throughput capacity: 0.575 tons of aluminum per hour.

- (i) One (1) magnesium treatment in the aluminum foundry, known as EU9, installed in ~~1992~~~~1980~~, capacity: 0.53 tons of magnesium per hour.

Comment 3:

We do not believe that each individual process operation identified in Section D.1.1(a) should be assigned an hourly PM-10 emission limitation to comply with 326 IAC 2-8-4. The requirement for any FESOP should be to simply accept a federally enforceable source wide emission limitation of 99 tons per year for each criteria pollutant to avoid the major source (i.e., Title V) applicability threshold. To break this "allowable" 99 tons per year threshold for the entire source into individual process emission limitations at this facility severely hampers the operational flexibility that is required in today's highly competitive market. This facility is concerned that at any given point in time one foundry process may not be in compliance with its hourly PM-10 emission limitation, but at the same time the whole source combined would easily be in compliance with the 99 tons per year limitation. We request that you remove these individual hourly PM-10 emission limitations from this FESOP since such limitations are not specifically mandated by either federal or state air regulations.

Response 3:

The source elected to comply with emission limits pursuant to 326 IAC 2-8-4 in requesting a FESOP rather than obtaining a Part 70 Operating Permit. The source must be able to show compliance with these limits in a practical manner. As stated in the TSD on pages 12 and 13, the PM₁₀ hourly emission rates for uncontrolled emission units were the potential PM₁₀ emission rates based on emission factors and throughputs. None of the controlled emission units were limited to less than the potential emission rates calculated with the stated control efficiencies. In fact, the EU13, EU14, EU17 and EU21 allowable PM₁₀ emission rates were increased by a factor of 6.1 (11.5/1.88) above the calculated potential emission rates after control to make up the difference between the controlled potential-to-emit and the allowable of one hundred (100) tons per year under the FESOP. Thus, no change is required to the permit.

Comment 4:

Similarly, we do not believe that each individual process operation identified in Section D.1.2 should be assigned an hourly PM emission limitation to comply with 326 IAC 2-2. The requirement for this facility to avoid the PSD requirements should be to simply not exceed 250 tons of PM per year on a source wide basis. This facility has already verified in the application that the maximum potential source wide PM emissions after controls are only 103.4 tons per year. Obviously, this facility should be considered an existing minor PSD source without any further regulatory requirements. We request that you delete these individual hourly PM emission limitations from this FESOP since such limitations are not specifically mandated by either federal or state air regulations.

Response 4:

In order to avoid the applicability of 326 IAC 2-2, the source has accepted emission limits rather than undergo PSD review. The source must be able to show compliance with these limits in a practical manner. As explained in the TSD on page 11 and similarly to Response 4, PM hourly emission rates for uncontrolled emission units were the potential PM emission rates based on emission factors and throughputs. None of the controlled emission units were limited to less than the potential emission rates calculated with the stated control efficiencies. In fact, the EU13, EU14, EU17 and EU21 allowable PM emission rates were increased by a factor of 3.47 (43.5/12.54) above the calculated potential emission rates after control to make up the difference between the controlled potential-to-emit and the allowable of less than 250 tons per year to avoid the requirements of 326 IAC 2-2. Thus, no change is required to the permit.

Comment 5:

The language in Section D.1.4 should be modified to the following: "Any change or modification which may increase the potential emissions of VOC to twenty-five (25) tons per year from the core machines (EU22 - EU24) and/or the surface coating spray application process (EU26) must be approved by the OAM before such change may occur.

Response 5:

Since EU26 and EU27 were combined as EU26, therefore all references to EU27 should have been removed from the permit. Therefore, Conditions D.1.1(a), D.1.2 and D.1.4 have been revised as follows:

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 PM₁₀ [326 IAC 2-8-4] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-8-4, the hourly PM₁₀ emissions from the individual emission units shall not exceed the following:

Operation/Stack ID	Hourly PM ₁₀ Emission Limits (pounds per hour)
Aluminum Foundry	
Pattern Painting & Core Release (EU26- & 27)	0.116
Total	21.3

D.1.2 PM [326 IAC 2-2]

To avoid the requirements of 326 IAC 2-2, the hourly PM emissions from the individual emissions units shall not exceed the following:

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
Aluminum Foundry	
Pattern Painting & Core Release (EU26 & 27)	0.116
Total	55.6

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which may increase the potential emissions of VOC to twenty-five (25) tons per year from the core machines (EU22 - EU24) and/or pattern parting booth and the core release application area (EU26 ~~and EU27~~) must be approved by the Office of Air Management before such change may occur.

Comment 6:

"Exhaust stack visible emission (VE) notations in Section D.1.8(a) are listed as being required both daily and once per shift during normal daylight operations. We request that you modify the language of this condition to make it clear that only daily VE notations are required when exhausting to the atmosphere.

Response 6:

Condition D.1.8 has been revised to clarify that the visible emission notations are required once per shift as follows:

D.1.8 Visible Emissions Notations

-
- (a) ~~Daily~~ Visible emission notations of the four (4) mixers (EU18 - EU21), the mechanical sand reclamation unit (EU13) and stack exhausts 4 and 12 for the GOFF blaster (EU14) and the thermal sand reclamation unit (EU17), respectively, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Comment 7:

Baghouse differential pressure monitoring in Section D.1.9 is listed as being required at least once per shift. We request that you modify the language of this condition to state that only daily baghouse differential pressure monitoring is required for these processes when exhausting to the atmosphere.

Response 7:

Condition D.1.9 has parametric monitoring required once per shift for the foundry. This frequency of checking the pressure drops insures that the control devices are operating properly and therefore the hourly PM and PM₁₀ emission rates comply with 326 IAC 2-2 and 326 IAC 2-8.

Comment 8:

The record keeping requirement in Section D.1.13(b)(1)(B) should be deleted from the permit. The baghouse cleaning cycle frequency is not a parameter that is routinely recorded by industry. The important item to monitor and record is the differential static pressure (i.e., the pressure drop across the baghouse). This item has been covered in Section D.1.13(b)(1)(A). A requirement to monitor the cleaning cycle frequency is simply redundant and unnecessary to ensure proper operation of the baghouse.

Response 8:

Condition D.1.13(b)(1)(B) which requires record keeping of the baghouse cleaning cycle frequency has been deleted since the Air Compliance Section of IDEM has agreed that this requirement is superfluous. Therefore, Condition D.1.13(b)(1)(B) has been deleted as follows:

- (b) To document compliance with Condition D.1.9, the Permittee shall maintain the following:
- (1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:
- (A) Inlet and outlet differential static pressure. ~~and~~
- (B) ~~Cleaning cycle frequency and differential pressure.~~

Upon further review, the OAM has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

1. As part of the U.S. EPA's 1997 Compliance Assurance Monitoring rule making (Federal Register Volume 62, page 54900-54947, Wednesday, October 22, 1997), the language in 40 CFR Part 70.6(c)(5)(iii)(B)) was changed from "continuous or intermittent compliance" to "based on continuous or intermittent data" The U.S. District Court of Appeals, Washington D.C. ruled against EPA's language, saying that the Clean Air Act wording of continuous or intermittent compliance had to be used. (NRDC vs. EPA, #97-1727) This change has been made to this permit to be consistent with state and federal law as follows in Condition B.12:

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was ~~based on~~ continuous or intermittent ~~data~~;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Indiana Department of Environmental Management
Office of Air Management**

**Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP)**

Source Background and Description

Source Name:	Muncie Casting Corporation
Source Location:	1406 East 18th Street, Muncie, Indiana 47302
County:	Delaware
SIC Code:	3321 and 3365
Operation Permit No.:	F 035-9977-00061
Permit Reviewer:	Mark L. Kramer

The Office of Air Management (OAM) has reviewed a FESOP application from Muncie Casting Corporation relating to the operation of an aluminum and gray iron foundry.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

Iron Foundry

- (a) One (1) charge handling operation, known as EU1, installed in 1992, capacity: 0.45 tons of gray iron per hour.
- (b) Two (2) electric melting furnaces, known as the 1,000 pound and the 500 pound furnaces, known as EU2, installed in 1992, throughput capacity: 10.8 tons of gray iron per day total limited by single power supply.
- (c) One (1) magnesium treatment of ductile iron operation, known as EU3, installed in 1992, capacity: 0.09 tons of iron per hour.
- (d) One (1) pouring/casting operation, known as EU4, installed in 1992, capacity: 0.45 tons of gray iron per hour.
- (e) One (1) casting cooling operation, known as EU5, installed in 1992, capacity: 0.45 tons of gray iron castings per hour.
- (f) One (1) shakeout operation (physically located in the aluminum foundry), known as EU6, installed in 1992, capacity: 0.45 tons of gray iron castings per hour.

Aluminum Foundry

- (g) Four (4) electric melting furnaces, consisting of three (3) (2,300 pound furnaces) and one (1) (1000 pound furnace), collectively known as EU7, installed in 1980, throughput capacity: 0.450 tons of aluminum per hour for the three (3) (2,300 pound furnaces) plus 0.350 tons of aluminum per hour for the one (1) (1000 pound furnace), total throughput capacity: 0.575 tons of aluminum per hour.
- (h) One (1) natural gas-fired melting furnace, (300 pound furnace) known as EU8, rated at 1.0 million British thermal units per hour, installed in 1980, capacity: 0.050 tons of aluminum per hour.
- (i) One (1) magnesium treatment in the aluminum foundry, known as EU9, installed in 1980, capacity: 0.53 tons of magnesium per hour.
- (j) One (1) pouring/casting operation, known as EU10, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (k) One (1) casting cooling operation, known as EU11, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (l) One (1) shakeout operation, known as EU12, installed in 1980, capacity: 0.625 tons of aluminum per hour.
- (m) One (1) mechanical sand reclamation unit (located in the aluminum foundry), known as EU13, equipped with a dust collector, installed in 1991, capacity: 1.5 tons of sand per hour.
- (n) One (1) GOFF steel shot blast machine (located in the aluminum foundry), known as EU14, equipped with a baghouse, installed in 1993, exhausted through Stack 4, capacity: 0.31 tons of aluminum or gray iron castings per hour.
- (o) One (1) small aluminum shot blast machine (located in the aluminum foundry), known as EU15, equipped with a Viking baghouse (does not have to be operated at all times), installed in 1993, exhausted inside the building, capacity: 0.03 tons of aluminum castings per hour.
- (p) One (1) sand blaster machine (located in the aluminum foundry), known as EU16, equipped with a Blast-It-All baghouse (does not have to be operated at all times), installed in 1980, exhausted inside the building, capacity: 0.03 tons of aluminum or gray iron castings per hour.
- (q) One (1) thermal sand reclamation unit (located in the aluminum foundry), known as EU17, equipped with two (2) natural gas-fired burners, rated at 1.0 million British thermal units per hour each, equipped with a baghouse, installed in 1998, exhausted through Stack 12, capacity: 1 ton of sand per hour.
- (r) One (1) Strong Scott sand mixer (located in the iron foundry), known as EU18, utilizing a Novathane binder system, installed in 1980, capacity: 6.0 tons of sand per hour.
- (s) One (1) Kloster sand mixer (located in the aluminum foundry), known as EU19, utilizing a Novathane binder system, installed in 1994, capacity: 9.0 tons of sand per hour.

- (t) One (1) Palmer core mixer #1 (located in the aluminum foundry), known as EU20, utilizing a Novathane binder system, installed in 1994, capacity: 6.0 tons of sand per hour.
- (u) One (1) Palmer core mixer #2 (located in the aluminum foundry), known as EU21, utilizing an Isoet binder system), installed in 1998, capacity: 6.0 tons of sand per hour.
- (v) One (1) CB-22 core machine (located in the aluminum foundry), known as EU22, equipped with a caustic soda scrubber (does not have to be operated at all times), installed in 1998, capacity: 0.5 tons of cores per hour.
- (w) One (1) Dependable 420 core machine (located in the aluminum foundry), known as EU23, equipped with a caustic soda scrubber (does not have to be operated at all times), installed in 1998, capacity: 0.5 tons of cores per hour.
- (x) One (1) U-180 core machine (located in the aluminum foundry), known as EU24, utilizing a shell binder system, installed in 1998, capacity: 0.045 tons of cores per hour.
- (y) One (1) surface coating spray application process (in the mold and core making areas), known as EU26, installed in 1980, capacity: 8,637 pounds of coating materials per year.
- (z) Fugitive outdoor waste sand storage and handling, known as EUF1, capacity 20 tons of waste foundry sand.
- (aa) One (1) paint booth (located in the pattern shop), known as EU25, installed in 1980, removed from service.

Note: Exhaust fans #1, #2 and #3 are located above the pouring lines and furnaces in the Iron Foundry. Exhaust fans #5 through #8 are located above or near the cooling lines and the 1,000 Lb and two (2) 2,300 Lb furnaces in the Aluminum Foundry.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (b) The following VOC and HAP storage containers: storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons; vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (c) Refractory storage not requiring air pollution control equipment.
- (d) Equipment used exclusively for the following: Packaging lubricants and greases, filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (e) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.

- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. Parts washer (covered cold cleaner), capacity: 40 gallon
- (h) Cleaners and solvents characterized as follows: having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or; having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (j) Closed loop heating and cooling systems.
- (k) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (l) Water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Paved and unpaved roads and parking lots with public access.
- (o) Grinding and machining operations controller with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (p) Filter or coalescer media changeout.
- (q) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kiloPascals measured at 38EC).
- (r) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (s) Other activities with insignificant thresholds:
 - (1) Two (2) electric heat treating machines.
 - (2) Three (3) sand storage silos, equipped with bin-top filler banks exhausted through Stacks #9, #10 and #11, capacity: 10, 40 and 40 tons, respectively, throughput 1,462.25 tons of sand per year total.
 - (3) Woodworking activities in the pattern shop (sawing, cutting, routing and planing).
- (t) Experimental sand and shot blasters for research and development.
- (u) One (1) electric heat treat furnace with no emissions.

Existing Approvals

There are no existing approvals for this source.

Power Supply Limits Melt Capacity

The company has justified that the two (2) iron melting furnaces can not be operated simultaneously due to power supply limitations. The source has claimed that a major modification with a significant capital investment would be required in order to allow both furnaces to operate simultaneously. The iron melting capacity has been stated as 0.45 tons of iron per hour total. A condition in the proposed permit will limit the iron melt throughput to 0.45 tons per hour. The PTE for the iron side of the source was based on the power limit for the furnaces for all iron production processes.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is aware that the source was not issued a FESOP by December 14, 1996 nor did they submit a Part 70 application by that date.
- (c) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on July 27, 1998 and a revised application was received on August 5, 1999. Additional information was received on September 7 and November 12, 1999 as well as May 19 and July 10, 2000.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 13 of 13 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	560.7
PM ₁₀	148.4
SO ₂	3.60
VOC	27.9
CO	1.10
NO _x	1.36

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Formaldehyde	2.74
Naphthalene	1.14
MEK	0.004
Toluene	0.015
Xylene	0.321
Phenol	0.000
Benzene	0.002
Acrolein	0.000
Insignificant Activities	0.500
TOTAL	4.72

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM₁₀ is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability. Please refer to the discussion on pages 9 - 11 of this TSD for a detailed explanation of PSD applicability in State Rules (326 IAC 2-2).

(c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Combustion EU8 & EU17	0.025	0.100	0.008	0.072	1.10	1.31	negligible
Insignificant Activities	11.5	11.5	0.000	0.5	0.000	0.000	0.5
Total Emissions	115	62.6	3.51	27.9	1.10	1.36	Single <10 Total <25

The thermal sand reclamation unit utilizes a baghouse for PM control that has a 99.8% control efficiency. The sand mixers and the core making machines do not have PM control devices. However, the CB-22 core machine and the Dependable 420 Horizontal core machine are vented to a caustic soda scrubber to control the SO₂ gas emissions from the Isojet activator component. Even though there is not a PM control device physically attached to each of the four sand mixers, a 90% control efficiency is included for each mixer in the emission calculations. The source's rationale for using this control efficiency is for the following reasons:

- (a) The thermal reclamation unit is used to remove the fines from 100% of the new virgin sand coming into the facility, and so there is very little fines left by the time this new sand reaches the sand mixers.
- (b) The spent sand that is recycled from shakeout back into the sand mixing/handling process must first pass through a sand storage silo that contains a dry filter bank. Therefore, any fines generated from this spent sand is removed prior to being fed into the mixers. In addition, this spent sand would still contain some of the resin material that was not completely burned off during pouring, cooling, and shakeout. Although the spent sand is dry, it is contained within a completely enclosed systems all the way from the mechanical sand reclamation unit to the point at the mixer heads where the binders and catalyst are added.
- (c) The sand mixers themselves are completely enclosed, thereby eliminating the opportunity for PM to escape into the plant.
- (d) The sand being processed through the mixers is already moist because it has been treated with liquid resin or binder materials. Since this sand is already wet, there is little opportunity for fines to be generated within this process operation.
- (e) If there was as much PM being generated at these sand mixes as indicated by AP-42, the facility would quickly become overcome by airborne dust and the visibility in the plant would be too poor to continue operations. This of course is not the case based upon actual conditions within this facility.
- (f) The AP-42 emission factor for sand handling assumes a dry, fine grained material is being handled or processed, which is not the case in these mixers.

Because of these factors, the applicant believes that it is appropriate to use a 90% control efficiency. IDEM concurs with the applicants rationale, and therefore the 90% control efficiency has been used for these mixers, EU18 through EU21.

County Attainment Status

The source is located in Delaware County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Delaware County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. The insignificant activity, degreaser operation, is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63.460, Subpart T) since it does not use halogenated solvents.

State Rule Applicability - Entire Source

326 IAC 2-2 (PSD)

This source is a minor source under PSD because it is not one of the twenty eight (28) listed sources and the potential PM and PM₁₀ emissions after control do not exceed two hundred fifty (250) tons per year.

Muncie Casting should not be considered a Secondary Metal Production Plant which is one of the US EPA's 28 listed source categories with an applicability threshold level of one hundred (100) tons per year. The following discussion on PSD revolves around the fact that the Muncie Casting as a whole is a metal foundry/ casting plant and not a traditional Secondary Metal Production Plant as defined by US EPA, regardless of the aluminum or gray iron throughputs.

This facility consists of both aluminum and gray iron production areas. In the original FESOP application submitted to IDEM, this facility was described as an aluminum foundry because it manufactures primarily aluminum castings. This was based upon the historical production of aluminum castings versus gray iron castings. If this facility were to be evaluated solely as an aluminum foundry (i.e., aluminum die caster), then the PSD major source applicability threshold would be 250 tons per year. This is based upon the US EPA Memorandum by Mr. Thomas C. Curran dated December 4, 1998.

The US EPA Guidance Memorandum dated December 4, 1998 was prepared primarily for the aluminum die casting industry. However, this guidance can also be applied to other types of metal production facilities (i.e., gray iron). A metal processing facility would meet the US EPA definition of a Secondary Metal Production Plant if it contained the following processing steps: receiving post-consumer or post-industrial metal scrap; drying, shredding, or grinding the metal scrap; burning off organic or other volatile residues such as paint or oil from the metal scrap; and sweating or decanting in furnaces to isolate a certain metal component. A Secondary Metal Production Plant also removes a significant amount of undesirable alloyed metals by the smelting process while still in the furnace. During this part of the process, the molten mixture is "fluxed" with chloride salts and/or chlorine gas to separate the undesirable metals (i.e., "demagging") and impurities. Hydrogen gas is also removed (i.e., "degassing") by bubbling an inert gas through the molten metal. After the impurities are removed, certain metals or minerals are added to bring the metal back to customer specifications. The process concludes with a final filtration, followed by casting the recovered metal into ingots or other similar forms.

Muncie Casting does not use feedstock, does not engage in the aforementioned processes, and does not produce the end products that are characteristic of facilities that are engaged in secondary metal recovery. EPA's guidance document precludes those facilities that melt alloys for castings from the secondary metal definition. The Aluminum Foundry at Muncie Casting predominantly melts aluminum ingot and internal return, while occasionally melting a small amount of relatively clean external scrap of approximate equivalent purity to the castings. The only metal purification that occurs in the aluminum foundry is a light fluxing operation which removes oxidation. No "demagging" occurs within this operation.

Based upon an USEPA Region V letter to IDEM dated October 26, 1999 regarding Fountain Foundry, an iron foundry that melts any type of post-consumer scrap is automatically considered a "Secondary Metal Production Facility". Post-consumer scrap is defined as any product or intermediate that has been discarded by consumers after its intended use. Webster's Dictionary defines a consumer as a "person or thing that consumes; specifically, a person who buys goods or services for his own needs and not for resale or to use in the production of other goods for resale." Therefore, the term "post-consumer scrap" would seem to indicate scrap metal items such as used cans, used automobile engine and body parts, used home appliances, home or building demolition waste and used electrical wire. This type of old scrap metal would be found in a junkyard or recycling center. A typical iron foundry would purchase this type of scrap metal from a "middleman" metal recycler who would first process the scrap metal into the desired specifications so that it can be sold to the iron foundry for immediate processing.

Furthermore to expand upon the definition of scrap, the RCRA, Superfund & EPCRA Hotline Training Modules were reviewed. It was interesting to note that scrap metal is excluded from the RCRA definition of solid and hazardous waste. Furthermore, RCRA differentiates between "processed" scrap, "home" scrap, and "prompt" scrap. Prompt scrap metal, which is also referred to as industrial or new scrap metal, is generated by the metal working/fabrication industries and includes scrap such as turnings, cuttings, punchings, and borings. Prompt scrap is distinguished from processed scrap because it is scrap metal which has not been manually or mechanically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. The implication is that processed scrap is relatively "dirty" and thus has to be processed in some fashion in order for it to be reused. Prompt scrap is also distinguished from home scrap because it is scrap metal not originally generated by a steel mill, foundry, or refinery. Again, the implication is that home scrap is relatively "dirty" due to the type of industrial process from which it was derived. The "clean" punchings that are reused by Muncie Casting are best described by the prompt scrap category.

Muncie Casting differs from the typical iron foundry because it does not utilize post-consumer scrap with varying specifications. Instead, Muncie Casting purchases “punchings” that are generated at a steel fabrication facility. These steel punchings are not considered scrap because they are not too dirty to be reused or recycled directly back into a product manufacturing process. The only reason that the metal fabrication facility cannot reuse these punchings internally is because of their physical size and nature. Muncie Casting purchases these punchings for direct reuse in its iron furnaces without any type of on-site pretreatment or scrap preparation processes. Also, the iron constituents of these punchings remain very consistent due to the fact that the punchings have the same identical chemical make-up as the original steel sheets or rolls from which they are derived.

The only other scrap metal items processed through the iron furnaces at Muncie Casting are the defective internal iron castings that do not pass the customer's quality control specifications. No post-consumer scrap is melted in either the aluminum or iron foundries.

Therefore, the iron foundry at Muncie Casting should not be considered a “Secondary Metal Production Facility”. As such, the 250 tons per year PSD major source applicability threshold applies to this facility.

To assure compliance with 326 IAC 2-2, limited hourly PM emission rates have been calculated for each controlled facility (except EU15 and EU16 that do not need controls to comply with 326 IAC 6-3-2) by directly proportioning the PTE of PM of each controlled facility to the balance of 55.6 pounds per hour of PM, equivalent to 243.5 tons per year of PM, (accounting for 6.5 tons per year of non-fugitive insignificant activities) minus the uncontrolled PTE of 12.1 pounds per hour or a difference of 43.5 pounds per hour. This assures that the source is a minor PSD source with source-wide emissions of less than 250 tons per year. Therefore, the controlled PTE for each of the control emission units (EU13, EU14, EU17 through EU21) were ratioed by 43.5/12.54, where 12.54 is the sum of the controlled PTEs. This procedure increases the PTE for all emission units including nonfugitive insignificant activities to less than 250 tons per year.

Operation/Stack ID	Potential PM Emission Rate After Controls (pounds per hour)	Hourly PM Emission Limits (pounds per hour)
Iron Foundry		
Charge Handling (EU1)	0.270	0.270
Two (2) Electric Melting Furnaces (EU2)	0.405 total	0.405 total
Magnesium Treatment (EU3)	0.162	0.162
Pouring/Casting (EU4)	1.26	1.26
Casting Cooling (EU5)	0.630	0.630
Shakeout (EU6)	1.44	1.44
Aluminum Foundry		
Three (3) 2,300 Lb Melting Furnace (EU7)	0.285 0.285 0.285	0.285 0.285 0.285
1,000 Lb Melting Furnace (EU7)	0.238	0.238
300 Lb Melting Furnace (EU8)	0.095	0.095

Operation/Stack ID	Potential PM Emission Rate After Controls (pounds per hour)	Hourly PM Emission Limits (pounds per hour)
Magnesium Treatment (EU9)	0.954	0.954
Pouring/Casting (EU10)	1.75	1.75
Casting Cooling (EU11)	0.875	0.875
Shakeout (EU12)	2.00	2.00
Mechanical Sand Reclamation Unit (EU13)	2.70	9.37
GOFF Shot Blaster (EU14)	0.105	0.365
Small Aluminum Shot Blaster (EU15) uncontrolled	0.51	0.51
Sand Blaster (EU16) uncontrolled	0.51	0.51
Thermal Sand Reclamation Unit (EU17)	0.011	0.038
Strong Scott Mixer (EU18)	2.16	7.50
Closter Mixer (EU19)	3.24	11.2
Palmer Core Mixer #1 (EU20)	2.16	7.50
Palmer Core Mixer #2 (EU21)	2.16	7.50
Pattern Painting & Core Release (EU26 & 27)	0.116	0.116
Total	24.61	55.6

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than or one hundred (100) tons per year of PM. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM₁₀, SO₂, VOC, CO and NO_x shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

To assure compliance with 326 IAC 2-8, limited hourly PM₁₀ emission rates have been calculated for each controlled facility (except EU15 and EU16 that do not need controls to comply with 326 IAC 6-3-2) by directly proportioning the PTE of PM₁₀ of each controlled facility to the balance of 21.3 pounds per hour of PM, equivalent to 93.5 tons per year of PM₁₀, (accounting for 6.5 tons per year of non-fugitive insignificant activities) minus the uncontrolled PTE of 9.87 pounds per hour or a difference

of 11.5 pounds per hour. This assures that the source complies with the FESOP source-wide emission limit of less than 100 tons per year. Therefore, the controlled PTE for each of the control emission units (EU13, EU14, EU17 through EU21) were ratioed by 21.3/1.88, where 1.88 is the sum of the controlled PTEs. This procedure increases the PTE for all emission units including nonfugitive insignificant activities to less than 100 tons per year.

Operation/Stack ID	Potential PM ₁₀ Emission Rate After Controls (pounds per hour)	Hourly PM ₁₀ Emission Limits (pounds per hour)
Iron Foundry		
Charge Handling (EU1)	0.160	0.160
Two (2) Electric Melting Furnaces (EU2)	0.387 total	0.387 total
Magnesium Treatment (EU3)	0.162	0.162
Pouring/Casting (EU4)	1.26	1.26
Casting Cooling (EU5)	0.630	0.630
Shakeout (EU6)	1.01	1.01
Aluminum Foundry		
Three (3) 2,300 Lb Melting Furnace (EU7)	0.255 0.255 0.255	0.255 0.255 0.255
1,000 Lb Melting Furnace (EU7)	0.213	0.213
300 Lb Melting Furnace (EU8)	0.085	0.085
Magnesium Treatment (EU9)	0.954	0.954
Pouring/Casting (EU10)	1.75	1.75
Casting Cooling (EU11)	0.875	0.875
Shakeout (EU12)	1.40	1.40
Mechanical Sand Reclamation Unit (EU13)	0.405	2.477
GOFF Shot Blaster (EU14)	0.011	0.067
Small Aluminum Shot Blaster (EU15) uncontrolled	0.51	0.51
Sand Blaster (EU16) uncontrolled	0.51	0.51
Thermal Sand Reclamation Unit (EU17)	0.011	0.067
Strong Scott Mixer (EU18)	0.320	1.96
Closter Mixer (EU19)	0.490	3.00
Palmer Core Mixer #1 (EU20)	0.320	1.96
Palmer Core Mixer #2 (EU21)	0.320	1.96

Operation/Stack ID	Potential PM ₁₀ Emission Rate After Controls (pounds per hour)	Hourly PM ₁₀ Emission Limits (pounds per hour)
Pattern Painting & Core Release (EU26 & 27)	0.116	0.116
Total	12.0	21.3

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New source toxics control)

Since the potential single and combination HAPs are less than ten (10) and twenty-five (25) tons per year, respectively, this rule is not applicable to the source.

326 IAC 2-8-4(9) (Preventive Maintenance Plan)

- (a) A Preventive Maintenance Plan is not required for the EU1 through EU12, EU22 through EU24 and EU26 and EU27 because the emission units do not have controls and the actual PM emissions are less than twenty five (25) tons per year.
- (b) A Preventive Maintenance Plan is not required for the small aluminum shot blaster, EU15 and the sand blaster, EU16, because although they both have control devices, which are not necessary to comply with 326 IAC 6-3,:
 - (1) The allowable PM emissions are less than ten (10) pounds per hour, each, and
 - (2) The actual PM emissions are less than twenty five (25) tons per year, each.
- (c) A Preventive Maintenance Plan is required for the two (2) sand mixers and two (2) core mixers, known as EU18, EU19, EU20 and EU21, because:
 - (1) The allowable PM emissions exceed ten (10) pounds per hour, each, and
 - (2) There are PM controls inherent with the binder in the sand with these emission units.
- (d) A Preventive Maintenance Plan is not required for mechanical sand reclamation unit, EU13, the Shot blaster, EU14 and the thermal sand reclamation unit, EU17, operations because:

- (1) There are control devices for these facilities, and
- (2) The allowable PM emissions are less than ten (10) pounds per hour.

326 IAC 6-3-2 (Process Operations)

Pursuant to this rule the particulate matter (PM) shall be limited as specified in the following table:

Emission Unit	Process Weight Rate (tons per hour)	Allowable PM Emission Rate (pounds per hour)	Potential PM Emission Rate After Controls (pounds per hour)
Iron Foundry			
Charge Handling (EU1)	0.45	2.40	0.270
Two (2) Electric Melting Furnaces (EU2)	0.45 total	2.40 total	0.405 total
Magnesium Treatment (EU3)	0.09	0.817	0.162
Pouring/Casting (EU4)	0.45	2.40	1.26
Casting Cooling (EU5)	0.45	2.40	0.630
Shakeout (EU6)	0.45	2.40	1.44
Aluminum Foundry			
Three (3) 2,300 Lb Melting Furnace (EU7)	0.15 0.15 0.15	1.15 1.15 1.15	0.285 0.285 0.285
1,000 Lb Melting Furnace (EU7)	0.350	2.03	0.238
300 Lb Melting Furnace (EU8)	0.05	0.551	0.095
Magnesium Treatment (EU9)	0.53	2.68	0.954
Pouring/Casting (EU10)	0.625	2.99	1.75
Casting Cooling (EU11)	0.625	2.99	0.875
Shakeout (EU12)	0.625	2.99	2.00
Mechanical Sand Reclamation Unit (EU13)	1.5	5.38	2.70
GOFF Shot Blaster (EU14)	0.31	1.87	0.105
Small Aluminum Shot Blaster (EU15)	0.03	0.551	0.51 (uncontrolled)
Sand Blaster (EU16)	0.03	0.551	0.51 (uncontrolled)
Thermal Sand Reclamation Unit (EU17)	1.0	4.10	0.011
Strong Scott Mixer (EU18)	6.0	13.6	2.16

Emission Unit	Process Weight Rate (tons per hour)	Allowable PM Emission Rate (pounds per hour)	Potential PM Emission Rate After Controls (pounds per hour)
Closter Mixer (EU19)	9.0	17.9	3.24
Palmer Core Mixer #1 (EU20)	6.0	13.6	2.16
Palmer Core Mixer #2 (EU21)	6.0	13.6	2.16
Total		86.52	22.45

Note : The sum of the hourly potential emissions after controls has assumed that the baghouses for EU15 and EU16 are not operational since they are not required to meet the allowable PM emission rates pursuant to 326 IAC 6-3-2.

The allowable particulate matter (PM) emission rates from the above facilities were calculated by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baghouses for EU13, EU14 and EU17 shall be in operation at all times the mechanical sand reclamation unit, GOFF blaster, thermal sand reclamation system. The inherent moisture and binder resins shall be used with the Strong Scott and Closter sand mixers and the two (2) Palmer core mixers at all times that the mixers are in operation, in order to comply with these allowable PM limits.

326 IAC 8-1-6 (General reduction requirements for new facilities)

The core machines, EU22 through EU24, have total potential VOC emissions of less than twenty-five (25) tons per year, and therefore these three (3) machines constructed in 1998, are not subject to the requirement of this rule. Furthermore, the pattern parting booth and the core release application area, EU26 and EU27, also have total potential VOC emissions of less than twenty-five (25) tons per year and therefore, are not subject to this rule.

State Rule Applicability - Insignificant Activities

326 IAC 8-3-2 (Cold Cleaner Operations)

The owner or operator shall:

- Equip the cleaner with a cover;
- Equip the cleaner with a facility for draining cleaned parts;
- Close the degreaser cover whenever parts are not being handled in the cleaner;
- Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- Provide a permanent, conspicuous label summarizing the operation requirements;
- Store waste solvent only in covered containers and not dispose of waste solvent or transfer

it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

- (a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (a) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

326 IAC 6-3-2 (Process Operations)

The allowable PM emission rate from the brazing equipment, cutting torches, soldering equipment, and welding equipment, grinding and machining operations, the three (3) sand storage silos and woodworking activities in the pattern shop shall not exceed allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Testing Requirements

No testing is required since no single emission unit represents over forty (40%) percent of the total PM or PM₁₀ potential to emit. Emission units (EU18 - 21) with a potential to emit PM or PM₁₀ of greater than twenty-five (25) are based on standard AIRS emission factors and thus no testing is required.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The two (2) sand and two (2) core mixers, (EU18 through EU21) the mechanical sand reclamation unit (EU13), the GOFF blaster (EU14) and the thermal sand reclamation unit (EU17) have applicable compliance monitoring conditions as specified below:

- (a) Daily visible emissions notations of the four (4) mixers shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
- (b) The Permittee shall record the total static pressure drop across the dust collectors/baghouses used in conjunction with the mechanical sand reclamation unit (EU13), the GOFF blaster (EU14) and the thermal sand reclamation unit (EU17), at least once per shift when these processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 and 8.0 inches of water for EU13, EU14 and EU17 or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
- (c) The permittee shall record the type, quality and origin of the materials melted at this source. Only in-house returns from this source and/or in-house returns from other sources where the composition of the purchased returns have at least the same quality of the source's own in-house returns shall be melted. Any other sources' returns shall be specified and controlled contractually.

These monitoring conditions are necessary because the mixers, blasters and reclamation units must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), 326 IAC 5-1 and 326 IAC 2-8 (FESOP).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations in Appendix A, on pages 5, 9 through 13.

Conclusion

The operation of this aluminum and gray iron foundry shall be subject to the conditions of the attached proposed FESOP No.: F 035-9977-00061.